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APPLICANT : NIPPON STEEL CORP;

INVENTOR : HAJI TOSHIAKI;

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TITLE : STEEL FOR SOUR-RESISTING RESISTANCE WELDED TUBE

ABSTRACT : PURPOSE: To economically obtain a steel for sour-resisting resistance welded tube excellent in sulfide stress corrosion resistance and having superior hydrogen induced cracking resistance and toughness by using Al and Ca by the amounts within the limited ranges, respectively, while practically obviating the necessity of the addition of Ni and Cu.

CONSTITUTION: This steel is a steel for sour-resisting resistance welded tube having a composition which contains, by weight, 0.004-0.024% Al and Ca by the amount satisfying an equation, $[\text{TotalCa} - (\text{Ca as CaO}) - (\text{Ca as CaS})] / (1.48\text{S} + 0.84\text{O} - 15.3) = 1.5 \text{ to } 4.5$, and in which practically neither Ni nor Cu is added, and further, inclusions are economically reduced in this steel. It is preferable that this steel contains, other than the above Al and Ca, \leq about 0.15% C, \leq about 0.6% Si, about 0.6-1.5% Mn, \leq about 0.007% P, about 0.003-0.03% Ti, \leq about 0.0035% N, \leq about 1.0% Cr, about 0.5% Mo, \leq about 0.1% Nb, \leq about 0.1% V, and \leq about 0.005% B. This steel is suitable for use in a sour and low-temp. environment.

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